



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/735,542

12/14/2000

Paul G. Wilson

13551

6558

293

7590

04/04/2006

Ralph A. Dowell of DOWELL & DOWELL P.C.

2111 Eisenhower Ave

Suite 406

Alexandria, VA 22314

EXAMINER

HOM, SHICK C

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 09/735,542 | Applicant(s) WILSON ET AL. | |
| | Examiner Shick C. Horn | Art Unit 2616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6 and 8-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,9,11-31 is/are rejected.
- 7) ☒ Claim(s) 8 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Upon reconsideration, the after final amendment of 2/3/06 been entered and the finality of the previous office action is hereby withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 3-4, 6, 8-31 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 20-22, 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Coffey (7,007,075).

Art Unit: 2616

In claim 20 line 6 and claims 22, 26-27 line 2, which recite the resource manager being "adapted" to execute a method is not a positive recitation of the limitation of the resource manager; and therefore the limitations of the method recited following the word "adapted" is not given any patentability weight. Coffey discloses a plurality of packet-switched ports; a pool of port processing software entities (PPSES), each PPSE having sufficient capacity to provide processing for any of the packet-switched ports; and a resource manager (see col. 2 lines 6-28 which recite the resource manager which facilitates access to shared resource including a resource pool for multiple clients, whereby the resources include communication ports and col. 2 lines 61-67 which recite drivers being loaded and used when needed clearly anticipate the port processing software entities for processing the ports).

5. Claims 1, 3-4, 6, 9, 11-17, 19, 26, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Schunk et al. (6,980,515).

Regarding claims 1, 3, 11-15, and 29:

Claims 13 line 2 and claims 14-15, which recite the processing resource being "adapted" to perform conversion is not

Art Unit: 2616

a positive recitation of the limitation of the processing resource; and therefore the limitations following the word "adapted" is not given any patentability weight.

Schunk et al. disclose a multi-service gateway, comprising; means for receiving a connection request; means for determining a usage level of resources in a resource pool in the multi-service gateway; and means for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold (see abstract which recite providing resource for access to the multi-service network being determined by the call's QoA level of the connection request and current resource usage and col. 18 lines 53-61 which recite the resource pool and updating status of the resource pool), otherwise determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level as in claims 1, 29; and receiving the connection request prior to allocating resources from the resource pool as in claim 3 (see col. 1 line 66 to col. 2 line 10 and col. 8 line 58 to col. 9 line 2 which recite the use of quality of access QoA levels to prioritize connection requests when there is competition for resources whereby connection request with a higher QoS level is

Art Unit: 2616

given priority over a lower QoA level clearly anticipate if the usage level is above a threshold, determining the priority level of the connection request and allocating resources to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level).

Regarding claim 4:

Schunk et al. disclose receiving the connection request from a connection server/broker prior to allocating resources from the resource pool (see col. 3 lines 49-59 which recite the route server which performs the functions of the forwarding module).

Regarding claims 6, 9:

Schunk et al. disclose wherein the priority level of the connection request is a function of the type of traffic carried by the requested connection and wherein each connection request is associated to a type of traffic selected from the group consisting of originating, terminating, feature and progress (see col. 2 lines 11-21 which recite the connection request being assigned a QoA based on the inlink type of the call which clearly anticipate the type of traffic selected from the group consisting of originating, terminating, feature and progress).

Regarding claims 16-17, 26:

Schunk et al. disclose that if no processing resources are allocated to satisfy the connection request, blocking the connection request as in claims 16, 26 and reporting blockage of the connection request to a connection server/broker as in claim 17 (see col. 1 lines 51-55 which recite that due to user traffic and lack of resources, customer access may be refused and customer gets a busy signal and col. 4 lines 18-30 which recite the use of the digital modem server for providing access).

Regarding claim 19:

Schunk et al. disclose selecting the pool occupancy threshold to achieve a probability of blocking that is less than a pre-determined value (see col. 15 line 64 to col. 16 line 10 which recite associating an access threshold with each QoA level and if resource utilization exceeds the threshold corresponding to the QoA level the request is refused whereby system resources become limiting once threshold reaches 25 percent clearly anticipate selecting pool occupancy threshold to achieve blocking less than a pre-determined value).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2616

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 18, 23-25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schunk et al. (6,980,515) in view of Shaffer et al. (6,516,059).

Regarding claims 24-25:

Schunk et al. disclose use of a time-division multiplexed (TDM) format as in claim 24; and use of an asynchronous transfer

Art Unit: 2616

mode (ATM) format or an Internet Protocol (IP) format as in claim 25 (see col. 4 lines 52-64 which use the use of TMD busses and ATM busses on the switch's backplane).

For claims 18, 23-25, and 28, Schunk et al. disclose the method and gateway described in paragraph 5 of this office action. Schunk et al disclose all the subject matter of the claimed invention with the exception of wherein each PPSE has the capability to perform conversion of a signal from a circuit-switched format to a packet-switched format as in claim 23; and a plurality of circuit-switched ports and a set of circuit-switched connection resources, wherein the resource manager is further adapted to determine whether circuit-switched connection resources are required to satisfy the connection request and, if circuit-switched connection resources are required to satisfy the connection request, setting a cross-connect mapping for controlling the circuit-switched connection resources as in claims 18, 28.

Shaffer et al. from the same or similar fields of endeavor teach that it is known to provide wherein each PPSE has the capability to perform conversion of a signal from a circuit-switched format to a packet-switched format (see col. 4 lines 18-30 which recite the gateway translating signals from a packet-switched format to a circuit-switched format reads on

Art Unit: 2616

conversion of a signal from a circuit-switched format to a packet-switched format) as in claim 23; and a plurality of circuit-switched ports and a set of circuit-switched connection resources, wherein the resource manager is further adapted to determine whether circuit-switched connection resources are required to satisfy the connection request and, if circuit-switched connection resources are required to satisfy the connection request, setting a cross-connect mapping for controlling the circuit-switched connection resources (see abstract which recite allocating resource to support call-related features includes determining resource availability and col. 3 line 53 to col. 4 line 5 which recite load sharing including transfer of data over telephone network clearly reads on connecting and controlling the circuit-switched connection resources) as in claims 18, 28.

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the capability to perform conversion of a signal from a circuit-switched format to a packet-switched format; and a plurality of circuit-switched ports and a set of circuit-switched connection resources, wherein the resource manager is further adapted to determine whether circuit-switched connection resources are required to satisfy the connection request and, if circuit-

Art Unit: 2616

switched connection resources are required to satisfy the connection request, setting a cross-connect mapping for controlling the circuit-switched connection resources as taught by Shaffer et al. in the communications method and gateway of Schunk et al.

The capability to perform conversion of a signal from a circuit-switched format to a packet-switched format; and a plurality of circuit-switched ports and a set of circuit-switched connection resources, wherein the resource manager is further adapted to determine whether circuit-switched connection resources are required to satisfy the connection request and, if circuit-switched connection resources are required to satisfy the connection request, setting a cross-connect mapping for controlling the circuit-switched connection resources can be implemented by connecting the circuit-switched format to packet-switched format converter and circuit-switched network of Shaffer et al. to multi-service network switch of Schunk et al. The motivation for using the circuit-switched format to packet-switched format converter and circuit-switched network as taught by Shaffer et al. in the communication method and gateway of Schunk et al. being that it provides the desirable added feature of providing both circuit-switching and packet-switching to the multi-service network of Schunk et al.

Allowable Subject Matter

8. Claims 8 and 10 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Linneweh, Jr. et al. disclose a method and apparatus for allocating communication resources to support priority communications in a communication system.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sh

SH

Seema S. Rao
SEEMA S. RAO 4/3/06
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600